

Serial No.: 10/721,593

Attorney's Docket No.: 10559/136002/P3039C

REMARKS

Claims 24-49 were pending in the application prior to amendment. Claims 24-28, 30-35, 37, 38, and 40-49 stand rejected as allegedly being unpatentable over one or more of U.S. Patent No. 5,973,742 to Gardyne et al. ("Gardyne"), U.S. Patent 6,263,024 to Matsumoto ("Matsumoto"), U.S. Patent No. 6,177,950 to Robb ("Robb"). Claims 33 and 49 stand objected-to for informalities. Claims 29, 33, 36, 39, and 49 stand objected-to.

In view of the amendments and remarks herein, the rejections are respectfully traversed. Reconsideration and allowance are respectfully requested.

I. Allowable Subject Matter

The indication of allowable subject matter is gratefully acknowledged.

II. The Claim Objections

Claim 33 has been amended to correct its dependency. Claim 49 now properly indicates its status as "Previously Presented."

III. The Rejections under 35 U.S.C. 103Claim 24

Claim 24 stands rejected as allegedly being unpatentable under 35 U.S.C. 103 as allegedly being obvious in view of Gardyne and Matsumoto.

Serial No.: 10/721,593

Attorney's Docket No.: 10559/186002/P8089C

However, claim 24 is patentable over Gardyne and Matsumoto because the references neither teach nor suggest "a mode switching element, which configures each of said image manipulating devices to determine an entire calculation in a first mode, and configures each of said image manipulating devices to determine only a portion of an entire calculation in a second mode," as recited in claim 24.

The office action identifies SAE cells 322 of Figures 7 and 8 of Gardyne as image manipulating devices of claim 24. However, there is no teaching or suggestion in Gardyne that cells 322 determine an entire calculation.

Figures 7 and 8 of Gardyne show that each cell 322 has two outputs to an add_pass module, which either sums the two inputs or passes one of the two inputs on (depending on the status of the fi_fr control signal, please see column 16, lines 12-14 of Gardyne). The outputs of the add_pass modules are added in adders, regardless of the mode.

According to Figure 7 of Gardyne, in a first mode, one output is used from each of the cells 322 to determine the upper and lower SAE outputs, which refer to the upper half and lower half of the reference block. (Please see column 16, lines 12-30 of Gardyne). Thus, none of the cells 322 determines an entire calculation in the first mode. In a second mode, both outputs of each of the cells 322 are used to determine the upper and

Serial No.: 10/721,593

Attorney's Docket No.: 10559/186002/P3089C

lower SAE outputs. Again, none of the cells 322 determines an entire calculation in the second mode.

Thus, cells 322 do not determine an entire calculation in either of the frame or field modes. Instead, in each of the field and frame modes, cells 322 of Gardyne determine a portion of an entire calculation.

For at least the above reason, claim 24 is patentable over the cited references.

Claims 25-33

Claims 25-33 depend from claim 24, and are therefore patentable for at least the same reasons.

Claim 26

Claim 26 is further patentable because Gardyne neither teaches nor suggests that "each SAD receives a different block and source section, and calculates a difference between the whole block and the whole source," as recited in claim 26.

The office action alleges that "Gardyne teaches the first mode (frame) performing the image manipulating on a whole block." (Please see page 4 of the office action). However, as noted above, each of cells 322 (identified in the office action as the image manipulating devices of claim 24) does not calculate a difference between the whole block and the whole source. Instead, each of cells 322 performs part of the calculation.

Serial No.: 10/721,593

Attorney's Docket No.: 10559/186002/P8089C

For at least this additional reason, claim 26 is patentable over the cited references.

Claim 34

Claim 34 is patentable over the cited references because the references neither teach nor suggest "a plurality of sum of absolute difference devices operating to calculate a total distortion between two video parts obtained from said video part," and "wherein one of the plurality of sum of absolute difference devices operates to calculate the distortion between the two video parts obtained from said video part or operates to calculate a portion of the distortion between the two video parts obtained from said video part based on said partitioning," as recited in claim 34.

As noted above with respect to claim 24, each of cells 322 (identified in the office action as the image manipulating devices of claim 24) performs part of a calculation.

For at least the above reason, claim 34 is patentable over the cited references.

Claims 35-41

Claims 35-41 depend from claim 34, and are therefore patentable for at least the same reasons as stated above with respect to claim 34.

Claim 42

Serial No.: 10/721,593

Attorney's Docket No.: 10559/186002/PA089C

Claim 42 is patentable at least because the cited references neither teach nor suggest "a mode changing device, changing a mode of operation between a first mode in which each SAD device calculates a difference between two image parts of said video signals, and a second mode in which each SAD device calculates $1/N$ of a total of said video signals," as recited in claim 42.

It is respectfully noted that the office action does not point to any passage in the references as teaching this feature of claim 42. It is further respectfully noted that this feature of claim 42 is similar to the features of claim 29, which was indicated allowable in the office action. For at least this reason, claim 42 is in condition for allowance.

Claim 43

Claim 43 depends from claim 42, and is therefore in condition for allowance as well.

Claim 44

Claim 44 includes features similar to those of claim 24 discussed above. Claim 44 is therefore patentable for at least similar reasons.

Claims 45-46

Claims 45 and 46 depend from claim 44, and are therefore patentable for at least the same reasons.

Claim 47

Serial No.: 10/721,593

Attorney's Docket No.: 10559/186002/P8089C

Claim 47 includes features similar to those of claim 24 discussed above. Claim 47 is therefore patentable for at least similar reasons.

Claims 48-49

Claims 48 and 49 depend from claim 47, and are therefore allowable for at least the same reasons.

CONCLUSION

It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue, or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Claims 24-49 are in condition for allowance, and a notice to that effect is respectfully solicited. If the Examiner has any questions regarding this response, the Examiner is invited to telephone the undersigned at (858) 678-4311.

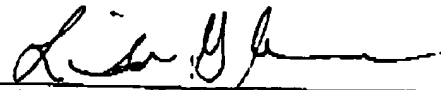
Serial No.: 10/721,593

Attorney's Docket No.: 10559/186002/P8089C

No fees are believed due. Please apply any other charges
or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: March 1, 2005


Linda G. Gunderson
Reg. No. 46,341

Fish & Richardson P.C.
PTO Customer Number: 20985
12390 El Camino Real
San Diego, CA 92130
Telephone: (858) 678-5070
Facsimile: (858) 678-5099
10470659.doc